

Amendments to the Claims

1. (currently amended) A semiconductor device comprising:
a source and a drain, said source and drain consisting essentially of silicide;
a semiconductor body formed from a semiconductor film disposed on an insulating layer, the insulating layer being disposed on a semiconductor substrate, the semiconductor film portion of the body being disposed between the source and the drain;
a gate electrode disposed over the body and defining a channel interposed between the source and the drain; and
a gate dielectric separating the gate electrode and the body, said gate dielectric being made from a material having a relative permittivity of greater than about 10;
wherein a top portion of the source and a top portion of the drain are disposed at vertical heights that are at least as high as a portion of the gate dielectric; and
wherein a bottom portion of the source and a bottom portion of the drain are each in physical contact with the insulating layer.
2. (original) The semiconductor device according to claim 1, wherein the semiconductor device is configured as a MOSFET.
3. (original) The semiconductor device according to claim 1, wherein the gate is comprised of a metal containing material.
4. (original) The semiconductor device according to claim 3, wherein the gate electrode is composed of one or more materials selected from titanium nitride, tantalum nitride, tungsten, tantalum, aluminum, nickel, ruthenium, rhodium, palladium, platinum and combinations thereof.
5. (previously presented) The semiconductor device according to claim 1, wherein the gate dielectric is composed of one or more materials selected from hafnium oxide, zirconium oxide, cerium oxide, aluminum oxide, titanium oxide, yttrium oxide, barium strontium titanate and mixtures thereof.

6. (original) The semiconductor device according to claim 1, further comprising a buffer interface disposed between the body and the gate dielectric.

7. (original) The semiconductor device according to claim 6, wherein the buffer interface is formed from an oxide having a thickness of about 0.5 nm to about 0.7 nm.

8. (original) The semiconductor device according to claim 1, wherein the silicide of the source and the drain is formed by reacting nickel with a layer of semiconductor material, the body being formed from the layer of semiconductor material.

9. (original) The semiconductor device according to claim 1, further comprising a liner disposed adjacent sidewalls defined by the gate electrode and gate dielectric.

10-19. (cancelled)

20. (currently amended) A semiconductor device comprising:
a source and a drain, said source and drain consisting essentially of silicide;
a ~~semiconductor~~ body formed from a semiconductor film disposed on an insulating layer, the insulating layer being disposed on a semiconductor substrate, the semiconductor film portion of the body being disposed between the source and the drain, wherein a source/body junction is defined by silicide material of the source and the semiconductor material film of the body and a drain/body junction is defined by silicide material of the drain and the semiconductor material film of the body;
a gate electrode disposed over the body and defining a channel interposed between the source and the drain; and
a gate dielectric separating the gate electrode and the body, said gate dielectric being made from a material having a relative permittivity greater than about 10;
wherein a top portion of the source and a top portion of the drain are disposed at vertical heights that are at least as high as a portion of the gate dielectric; and
wherein a bottom portion of the source and a bottom portion of the drain are each in physical contact with the insulating layer.

21. (currently amended) A semiconductor device comprising:

a source and a drain, said source and drain consisting of silicide;

a semiconductor body formed from a semiconductor film disposed on an insulating layer, the insulating layer being disposed on a semiconductor substrate, the semiconductor film portion of the body being disposed between the source and the drain;

a gate electrode disposed over the body and defining a channel interposed between the source and the drain; and

a high-K gate dielectric separating the gate electrode and the body, said high-K gate dielectric being made from a material having a relative permittivity of greater than about 10;

wherein a top portion of the source and a top portion of the drain are disposed at vertical heights that are at least as high as a portion of the gate dielectric; and

wherein a bottom portion of the source and a bottom portion of the drain are each in physical contact with the insulating layer.